

for tumour size, grade and histological type, and 26% were node positive on histology.

	Sensitivity	Specificity	Concordance
Per node	96%	95%	95%
Per patient	96%	94%	95%

The sensitivity for macrometastases was 99.8%.

**Conclusion:** Our experience of the use of RT-PCR for intraoperative analysis of sentinel lymph nodes shows a highly favourable concordance with histological analysis. It offers the ability to proceed to immediate axillary clearance and is, therefore, beneficial to patients. It is consistent and reliable. We believe intra-operative analysis should be available to all patients undergoing SLNB as part of breast cancer surgery.

doi:10.1016/j.ejcsup.2010.06.060

#### O-60 ONE-STEP NUCLEIC ACID AMPLIFICATION IN DETECTION OF LYMPH NODE METASTASES IN BREAST CANCER PATIENTS: ARE PATIENTS BEING OVER TREATED?

R. Madani<sup>a</sup>, S. Jafferbhoy<sup>a</sup>, L. Thwaites<sup>b</sup>, P. Jackson<sup>b</sup>, G.T. Layer<sup>a</sup>, T.E. Irvine<sup>a</sup>, M.W. Kissin<sup>a</sup>. <sup>a</sup>Department of Breast and Oncoplastic Surgery, Guildford, UK. <sup>b</sup>Department of Histopathology, Royal Surrey County Hospital, Guildford, UK

**Background and aims:** One-step nucleic acid amplification (OSNA) is an assay of cytokeratin 19 mRNA for intraoperative detection of lymph node metastasis in breast cancer. Patients who have micro-metastases proceed to level 1 axillary node clearance (ANC) and those with macro-metastases or positive but inhibited results to level 3 ANC, avoiding a second operation.

Presence or absence of micro-metastasis depends on the agreed cut off point on the amplification curve. The aim of this study was to review our data following introduction of OSNA and review the outcome of ANC in patients with positive OSNA results.

**Methods:** Data were collected prospectively from the introduction of this technique to date (01/12/2008 to 06/05/2010). Operations have been performed by four consultant breast surgeons.

**Results:** Three hundred and ten patients had 641 nodes analysed in the study period. 69% had wide local excision, 28% mastectomy and 7% SNB alone. Thirty-four percent had positive sentinel nodes and had further axillary surgery. Of these 39% had micro-metastases and 61% had macro-metastases or positive but inhibited results. Of the patients with micro-metastases 10% had further positive non-sentinel nodes. 41.2% of the patients with macro-metastases or positive but inhibited results had positive non sentinel nodes.

**Conclusion:** Over a third of patients had positive lymph nodes detected with OSNA and underwent ANC, eliminating the need for a second operation. Only 10% of patients with micro-metastases have further positive non-sentinel nodes. National trials are underway to determine if axillary clearance should be considered the correct option for this cohort of patients.

doi:10.1016/j.ejcsup.2010.06.061

#### O-61 ARGON BEAM COAGULATOR IN BREAST SURGERY: EFFECT ON THE INCIDENCE OF BREAST SEROMA

V. Lefemine, W. Samra. Glan Clwyd Hospital, Rhyl, UK

**Aim:** To compare the incidence of breast seroma following mastectomy, upon the use of argon beam coagulator (ABC) or conventional monopolar diathermy (MD).

**Method:** Data were collected retrospectively from January 2006 to August 2008 for all patients undergoing a simple mastectomy. Postoperative incidence of seroma, amount of drainage on day of discharge and number of days from drain removal to seroma formation were recorded.

**Results:** Fifty-six patients were studied, comparison were made for those who underwent a simple mastectomy using ABC (30 women) or MD (25 women). The two groups were similar with regard to age, type of axillary surgery and operative time. The incidence of postoperative breast seroma development was 30% in the former group and 36% in the latter. In the ABC group a high postoperative drainage (>50 ml/24 h) on the day of drain removal was associated with a higher incidence of seroma, whereas this was not observed in the MD group.

**Discussion:** The ABC has been recommended as tool of choice in patients undergoing mastectomy as it significantly reduces blood loss. Its impact on the incidence of breast seroma is still under scrutiny. Our results failed to show any statistically significant difference ( $p$  value = 0.275) in the incidence of breast seroma amongst the MD (36%) and the ABC (30%) group. ABC is more costly than the standard MD and their use need to be carefully considered in an era of over-stretched NHS financial budget. The need for further randomized studies is unquestionable.

doi:10.1016/j.ejcsup.2010.06.062

#### O-62 ONCOPLASTIC SURGERY: WHO IS DOING WHAT?

J. Skillman<sup>a</sup>, L. Whisker<sup>b</sup>, D. England<sup>b</sup>, M. Hallissey<sup>b</sup>. <sup>a</sup>University Hospital of Coventry and Warwickshire, Coventry, UK. <sup>b</sup>University Hospital, Birmingham, UK

Oncoplastic breast surgery combines plastic surgery techniques and breast cancer resection to improve cosmesis. Does its high profile reflect current practice?

**Aims:** Which oncoplastic procedures are being provided by whom? What are their concerns, do they agree with guidelines?

**Methods:** A questionnaire was distributed to members of the Association of Breast Surgery and BAPRAS.

**Results:** Two hundred and twenty eight surgeons responded (70 plastics (P), 158 breast (B)) of whom 41% thought oncoplastic surgery should be universally available.

Ipsilateral procedures were usually performed by general surgeons with oncoplastic training (90) or in a combined case (68). Breast surgeons were more likely to use rearrangement techniques (therapeutic mammoplasty (33%P, 40%B), Grisotti flaps (17%P, 27%B)) than plastic surgeons, who were more likely to use reconstructive procedures (LD flap (79%P, 52%B), tissue expanders (73%P, 47%B)). Therapeutic mammoplasty was felt to be under-utilized.

Contralateral procedures were commonly performed by plastic surgeons alone (72) or by oncoplastic trained surgeons (80). Fewer general than plastic surgeons performed breast reduction (80%P, 41%B) and mastopexy (80%P, 39%B).

Oncological concerns included delaying adjuvant treatment (21%P, 18%B), and margin involvement (19%P, 19%B) which most would manage by margin resection or mastectomy (43%P, 60%B). Infrequent concerns were parenchymal viability (6%P, 8%B), incomplete data (0%P, 4%B) and lengthy operations (8%P, 5%B).

Most surgeons agreed with ABS at BASO oncoplastic guidelines and would be interested in further oncoplastic training (49%P, 77%B).

**Conclusions:** Oncoplastic surgery is being performed by both general and plastic surgeons.

doi:10.1016/j.ejcsup.2010.06.063

#### O-63 ONCOPLASTIC OUTCOMES WITH IMPLANT BASED BREAST RECONSTRUCTION AND RADIOTHERAPY: AN 8 YEAR RETROSPECTIVE ANALYSIS

Ciara McGoldrick<sup>a</sup>, Darren Brady<sup>b</sup>, Stephen Sinclair<sup>a</sup>, Lindsay Damkat-Thomas<sup>a</sup>. <sup>a</sup>Regional Plastic and Maxillofacial Unit, Ulster Hospital Dundonald, UK. <sup>b</sup>Cancer Centre, Belfast City Hospital, UK

##### Introduction:

- Capsular contraction is a recognised complication of implant based reconstruction in breast cancer patients, with reported rates of pathological capsule formation ranging from 28% to 51% in patients undergoing radiotherapy.
- It has been suggested in recent literature that immediate-delayed reconstruction with a two stage procedure may reduce the capsule formation rates, while our institution has favoured immediate reconstruction procedure with the associated patient benefits of a single stage procedure.
- The use of electron beam therapy with the subsequent reduced tissue penetration in contrast to traditional 'glancing pairs' adjuvant radiotherapy is suggested as a possible contributing factor to reduced capsular formation rates in our cohort.

##### Methods:

- Identified all women with implants inserted between 1998 and present from implant records in a single institution ( $n > 450$ ) who received radiotherapy ( $n > 100$ ).

##### Results:

- Median age of the cohort was 46, with a mean time of follow-up of 4.84 years (range 1–9 years).
- The overall rate of pathological capsule formation was 33%, of which 27% proceeded to capsule surgery.
- No association was found between capsule formation and radiotherapy method, time to implant insertion, age of patient or use of autologous tissue.

**Discussion:** Recent literature has advocated the use of a two stage, immediate-delayed implant-based reconstruction in the setting of an irradiated breast field in order to minimise the risk of capsule formation. Our study has demonstrated equivalent capsule formation rates in a single stage procedure, thereby reducing the cumulative risk of an unnecessary second procedure in this population.

doi:10.1016/j.ejcsup.2010.06.064

#### O-64 ATTITUDES OF BREAST AND PLASTIC SURGEONS TO LIPOMODELLING IN BREAST SURGERY

L. Skillman<sup>a</sup>, L. Whisker<sup>b</sup>, D. England<sup>b</sup>, M. Hallissey<sup>b</sup>. <sup>a</sup>University Hospital Coventry and Warwickshire, UK. <sup>b</sup>University Hospital Birmingham, UK

**Aim:** To investigate the practice, attitudes and reservations of surgeons to lipomodelling.

**Method:** A closed ended format questionnaire was distributed to members of the Association of Breast Surgery and BAPRAS.

**Results:** A total of 228 surgeons responded (70 plastics, 158 breast). The majority (68%) were consultants.

Fat transfer or lipomodelling in breast surgery was performed by 48/70 (69%) plastic surgeons and 17/158 (11%) general surgeons. Lipomodelling was performed with a colleague by 7 plastics, 14 general surgeons. A further 7 plastics and 71 general surgeons were familiar with the procedure.

Attitudes towards lipomodelling were positive amongst most surgeons: 44/70 (63%) plastic surgeons and 96/158 (62%) breast surgeons felt that the benefits of fat transfer outweighed the risks. Reservations included that multiple procedures were required (2 plastics/7 general), that it does not work (1 plastics, 4 general), that stem cells may promote cancer (5 plastics, 3 general), that microcalcification may distort mammograms (6 plastics, 13 general), that fat necrosis may require biopsies (4 plastics, 12 general). Concerns were also voiced about the lack of prospective, long-term follow up data by 8 plastics and 28 general surgeons.

**Conclusion:** This study provides the first overview of the current practice and attitudes towards lipomodelling in breast surgery in the UK. The majority of plastic and general surgery trained surgeons feel that the benefits of lipomodelling outweigh the risks.

doi:10.1016/j.ejcsup.2010.06.065

#### O-65 THE RELATIONSHIP BETWEEN BIOMARKERS OF INFLAMMATION, CLINICOPATHOLOGICAL CHARACTERISTICS AND CANCER SPECIFIC SURVIVAL IN EARLY BREAST CANCER

C.A. Obondo, L. Mansell, A.M. Al Murri, A. Lannigan, J.C. Doughty, D.C. McMillan. University Department of Surgery, Royal Infirmary, Glasgow, UK

**Introduction:** Breast cancer is the second most common malignancy in women. The systemic inflammatory response (as